TTC2023 Meeting, Fermilab



Contribution ID: 33

Type: not specified

The science of FRIB: From the nuclear many-body challenge to the origin of the elements in the Universe

Friday, 8 December 2023 09:00 (45 minutes)

There are approximately 300 stable and 3,000 known unstable (rare) isotopes. Estimates are that over 7,000 different isotopes are bound by the nuclear force. It is now recognized that the properties of many yet undiscovered rare isotopes hold the key to understanding how to develop a comprehensive and predictive model of atomic nuclei, to accurately model a variety of astrophysical environments, and to understand the origin and history of elements in the Universe. Some of these isotopes also offer the possibility to study nature's underlying fundamental symmetries and to explore new societal applications of rare isotopes. This presentation will give a glimpse of the opportunities that arise at the Facility for Rare Isotope Beams (FRIB) that started operations at Michigan State University in 2022.

Presenter: GADE (MSU), Prof. Alexandra (Michigan State University) **Session Classification:** Special Seminars